Stop valve - angle pattern with flanges and bellows seal (Grey cast iron, SG iron, Cast steel)

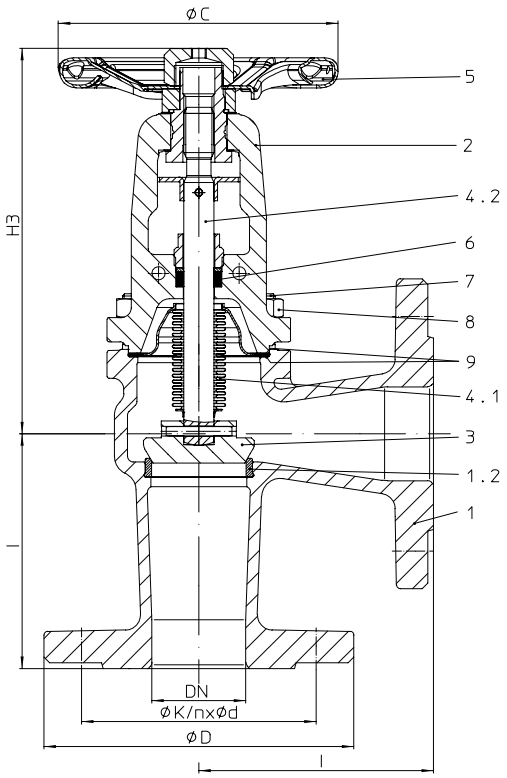


Figure-No.	Nominal pressure	Material	Nominal diameter
12.047	PN16	EN-JL1040	DN15-300
22.047	PN16	EN-JS1049	DN15-300
34.047	PN25	1.0619+N	DN200-300
35.047	PN40	1.0619+N	DN15-150

Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04
Considered standards:	• EN 13709 (1.0619+N) • EN 13789 (EN-JL1040, EN-JS1049)
Plug design:	• Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 12)

Parts					
Pos.	**Sp.p.**	**Description**	**Fig. 12.047**	**Fig. 22.047**	**Fig. 34.047 / Fig. 35.047**
1		Body	EN-JL1040, EN-GJL-250	EN-JS1049, EN-GJS-400-18U-LT	GP240GH+N, 1.0619+N
1.2		Seat ring	X20Cr13+QT, 1.4021+QT	X20Cr13+QT, 1.4021+QT	≤DN65: X20Cr13+QT, 1.4021+QT ≥DN80: G19 9 NbSi, 1.4551
2		Bonnet	EN-JS1049, EN-GJS-400-18U-LT	EN-JS1049, EN-GJS-400-18U-LT	GP240GH+N, 1.0619+N
3	x	Plug	≤DN200: X20Cr13+QT, 1.4021+QT (hardened) / >DN200: P265GH, 1.0425 / Stellit 21		
4		Spindle unit			
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571		
4.2		Stem	X20Cr13+QT, 1.4021+QT		
5	x	Handwheel	≤DN125: St (cataphoretic coating) / ≥DN150: EN-JL1040, EN-GJL-250 (epoxy-coating)		
6		Packing ring	Pure graphite		
7		Hexagon bolt	5.6	--	
7		Stud	--	25CrMo4, 1.7218	
8		Hexagon nut	--	C35E, 1.1181	
9	x	Gasket	Pure graphite (CrNi laminated with graphite)		
		└ Spare parts			

DN		15	20	25	32	40	50	65	80	100	125	150	200	250	300
Face-to-face dimension CTF series 8 acc. to DIN EN 558															
l	(mm)	90	95	100	105	115	125	145	155	175	200	225	275	325	375

Dimensions															Standard-flange dimensions refer to page 14
H3		(mm)	190	190	195	195	210	210	220	235	325	345	370	485	615	665
ØC	PN16	(mm)	125	125	125	125	150	150	175	175	225	300	400	520	520	520
	PN25	(mm)	125	125	125	125	150	150	175	175	300	300	400	520	520	520
	PN40	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	--	--
Travel		(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80
Kvs-value		(m^3/h)	6	9	14	19	35	53	94	143	245	390	590	845	1360	1825
Zeta-value		--	2,2	3,2	3,2	4,6	3,3	3,6	3,2	3,2	2,7	2,6	2,3	3,6	3,4	3,9
Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173															

Weights														
12. / 22.047	(kg)	3,7	4,4	5,1	6,5	8,3	11,2	14,6	19,4	29,4	44	58	145	221	298
34.047	(kg)	--	--	--	--	--	--	--	--	--	--	--	155	273	309
35.047	(kg)	4,6	6,4	6,7	7,5	10,1	12,7	17,5	22	34	49	60	--	--	--

Information / restriction of technical rules need to be observed!

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.
A production allowance acc. to TRB 801 No. 45 exists (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)
The engineer, designing a system or a plant, is responsible for the selection of the correct valve.
Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

DN			15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500
Standard-flange dimensions acc. to DIN EN 1092-1/-2															Flange holes / -thickness tol. acc. to DIN 2533/2544/2545				
PN6	ØD	(mm)	80	90	100	120	130	140	160	190	210	240	265	320	--	--	--	--	--
	ØK	(mm)	55	65	75	90	100	110	130	150	170	200	225	280	--	--	--	--	--
	n x Ød	(mm)	4x11	4x11	4x11	4x14	4x14	4x14	4x14	4x18	4x18	8x18	8x18	8x18	--	--	--	--	--
PN16	ØD	(mm)	95	105	115	140	150	165	185	200	220	250	285	340	405	460	520	580	715
	ØK	(mm)	65	75	85	100	110	125	145	160	180	210	240	295	355	410	470	525	650
	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	4x18 [1]	8x18	8x18	8x18	8x22	12x22	12x26	12x26	16x26	16x30	20x33
PN25	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	360	425	485	555	620	730
	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	310	370	430	490	550	660
	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x26	12x30	16x30	16x33	16x36	20x36
PN40	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	375	450	515	580	660	755
	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	320	385	450	510	585	670
	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x30	12x33	16x33	16x36	16x39	20x42

[1] also with 8 bore holes acc. to DIN EN 1092-1/-2 possible.

Pressure-temperature-ratings

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

acc. to DIN EN 1092-2			-60°C to <-10°C [1]	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
EN-JL1040	16	(bar)	--	16	14,4	12,8	11,2	9,6	--	--	--
EN-JS1049	16	(bar)	on request	16	15,5	14,7	13,9	12,8	11,2	--	--
EN-JS1049	25	(bar)	on request	25	24,3	23	21,8	20	17,5	--	--
EN-JS1049	40	(bar)	on request	40	38,8	36,8	34,8	32	28	--	--

acc. to manufacturers standard			-60°C to <-10°C [1]	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.0619+N	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	8,2
1.0619+N	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	13,1
1.0460	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	10
1.0460	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	16

acc. to DIN EN 1092-1			-60°C to <-10°C [1]	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.4408	16	(bar)	16	16	14,5	13,4	12,7	11,8	11,4	10,9	--
1.4408	25	(bar)	25	25	22,7	21	19,8	18,5	17,8	17,1	--
1.4408	40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4	--
1.4581	16	(bar)	8	16	15,6	14,9	14,1	13,3	12,8	12,4	--
1.4581	25	(bar)	12,5	25	24,5	23,3	22,1	20,8	20,1	19,5	--
1.4581	40	(bar)	20	40	39,2	37,3	35,4	33,3	32,1	31,2	--

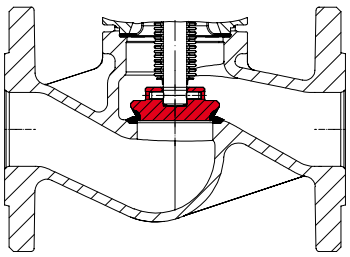
[1] Studs and nuts made of A4-70 (at temperatures below -10°C)

Please indicate when ordering

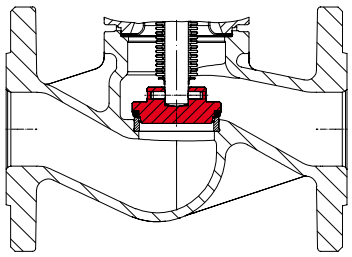
- Figure-No.
- Nominal pressure
- Nominal diameter
- Special design / accessories

Example:

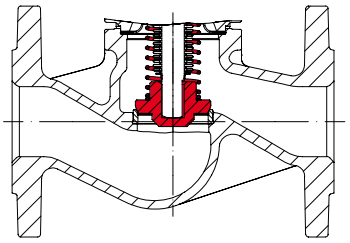
Figure 35.046; nominal pressure PN40; nominal diameter DN100.



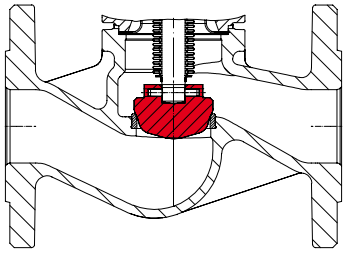
Isolation plug with marginal seat;
stellited seat and plug [1)]



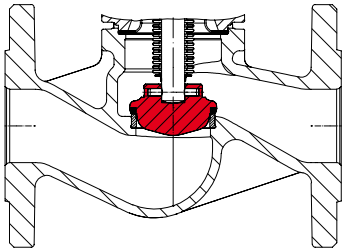
Plug with Soft seal
Max. operating temperature 200°C
at PTFE + 25% carbon



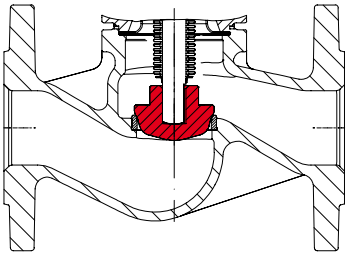
Screw down non-return plug with re-setting spring
(Set pressure refer to annex: Flow diagram)



Regulating plug with marginal seat [1)]

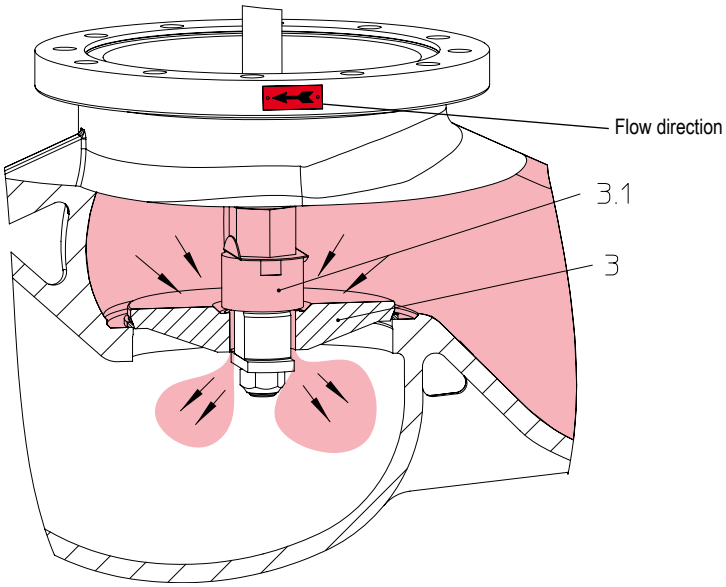


Regulating plug with soft seal [1)]
Max. operating temperature 200°C
at PTFE + 25% carbon



Screw down non-return regulating plug
with marginal seat [1)]
(Set pressure refer to annex: Flow diagram)

[1)] for max. permissible ΔP in throttling function, refer to annex: Flow diagram



Balancing plug
(Standard: DN15 - 300 with marginal seat, from DN350 with flat seat)

Valves with balancing plugs have to be installed with medium flowing over the plug (3) as indicated by flow direction arrow on valve body.
Working principles:
When the valve is closed, anticlockwise rotation of the hand wheel lifts the pilot plug (3.1) off the larger balancing plug (3).
This allows the medium to pass through the plug and equalizes the pressure of the medium under the plug (3). After the pressures have been equalized within the values stated in the table, the valve can be opened by turning the valve further with normal manual force.
Balancing plugs are fully effective only in closed systems.
The pressures of the medium on either side of the plug can not be equalized if the medium is discharged into open air.
A bypass line or some other arrangement is necessary if too much time is required for pressure equalization owing to the volume in the piping system.

ARI-stop valves with differential pressures exceeding the following pressures, have to be fitted with pressure balancing plugs

DN		125	150	200	250	300	350	400	500
Gauge press. (ΔP)	(bar)	25	21	14	9	6	4,5	3,5	1,5